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10/696,651	10/30/2003	Vincent Cedric Colnot		7795

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EXAMINER

SUN, SCOTT C

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/696,651

Applicant(s)

COLNOT, VINCENT CEDRIC

Examiner

Scott Sun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's amendments with respect to the rejection(s) of claim(s) 1-14 under 35 U.S.C. 112, 2nd paragraph, have been noted and entered. Previous rejections are withdrawn.
2. Applicant's arguments filed 11/16/2005 with respect to claim 1 have been fully considered but they are not persuasive.
3. Applicant's arguments with respect to claims 2-14 have been considered but are moot in view of the new ground(s) of rejection.
4. Examiner summarizes applicant's arguments regarding claim 1 as follows:
 - a. Landry does not teach an on-chip oscillator.
 - b. Landry teaches a card reader, rather than a smartcard as intended by applicant, comprising the elements or functionalities claimed by applicant.
5. Regarding argument 'a', examiner asserts that *Landry discloses at least two on-chip oscillators*, namely a modem (element 26, figure 3) and a v.8 bis tone decoder generator (element 28). A modem (short for modulator/demodulator) by definition includes an oscillator because part of its functionality is to generate analog waves. V.8 bis signaling is an analog wave used in telephone networks. Accordingly, a V.8 bis decoder generator by definition is an oscillator because it generates analog waves (also see Landry, column 7, lines 29-37).
6. Regarding argument 'b', examiner asserts that the preamble of claim 1 recites "a secure memory device *for a smart card*" which can be interpreted as a secure memory

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device used *with* a smart card. In other words, the smart card mentioned in claim 1 appears to be a device intended to be used with the secure memory device. "A secure memory device *for* a smart card" does not imply that the secure memory device is inside the smart card nor does it imply that the secure memory is the smart card, as applicant appears to argue on page 8 of remarks.

Furthermore, examiner reminds applicant that the recitation "a smart card" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

If applicant intends the secure memory device to be a part of the smart card, the claim should be phrased, or similarly phrased, as "a smart card comprising: a secure memory device; the secure memory device comprises ...".

7. Having addressed applicant's arguments, prior rejection directed toward claim 1 is attached below with modification to more clearly illustrate examiner's reasoning. New grounds of rejection are necessitated by applicant's amendment and are also attached as follows:

Claim Objections

8. Claims 16-28 are objected to because applicant appears to have intended to construct these claims to depend on claim 15 or a dependant claim of claim 15. For the purpose of continuing prosecution, examiner will interpret claims 15-28 to have the same dependency structure as claims 1-14. Specifically, claim 16 depends on 15; claim 17 depends on 16; claim 18 depends on 17; claim 19 depends on 18; claim 20 depends on 19; claim 21 depends on 20; claim 22 depends on claim 17; claim 23 depends on claim 22; claim 24 depends on claim 17; claim 25 depends on claim 24; claim 26 depends on claim 17; claim 27 depends on claim 26; claim 28 depends on claim 17.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 2-28 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Claim 2 recites "the card reader characterized by the absence of processing means, which appears to be a *structural* limitation of a card reader. Claim 2 also recites "a secure memory device as in claim 1, exchanging data with a host..." which appears to be directed to a *functional* limitation of the secure memory device. Therefore, it is uncertain if applicant intends to include the additional *structural* limitation, "a card reader

characterized by the absence of processing means” as part of the secure memory device.

The problem is magnified further by claim 12, a dependant claim derived from claim 2, which recites “a card reader equipped with a speaker/microphone transducer, converting the modulated signal into an audible sound and vice versa”. Clearly the card reader in claim 12 has *processing means that converts the modulated signal into an audible sound and vice versa*. Because a proper dependant claim must have each and every limitation of its parent claims, claim 12 appears to have both a card reader without processing means and a card reader with processing means. However, in light of the specification, the secure memory device clearly does not connect to two card readers at the same time, so the claim limitations, when directed to one card reader, appears contradictory. Examiner further notes that the disclosure of the invention also fails to provide a proper definition for determining what are, and what are not, processing means. Claim 12 appears to be directed towards an alternative embodiment of the invention in which a reader includes a transducer (applicant’s specification; page 4, lines 7-11) while claim 2 appears to be directed towards a different embodiment of the invention in which the reader is a connector. For the purpose of continuing prosecution, the card reader in claim 2 will be interpreted as a connector.

12. Claims 16 and 26 contain the same deficiencies as claims 2 and 12. The same reasoning is applied.

13. Claim 15 recites “a smart card having a secure memory device and a modem interface, *the memory device* comprising...”. It is unclear if “the memory device” is “a

secure memory device" or "a smart card", both of which are memory devices. For the purpose of continuing prosecution, "the memory device" is interpreted as "the smart card".

14. Claims 3-11, 13, 14, 17-25, 27, 28 are rejected because of their dependency on the above rejected claims.

15. The following rejections are made based on the examiner's best interpretation of the claims in light of the 35 USC 112 rejections above.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

17. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Landry (US Patent # 6,687,350).

18. Landry discloses a secure memory device (reader in figure 2 and 3) for a smart card with a modem interface comprising:

A rewritable memory (RAM, EPROM, FLASH; column 6, line 52);

A processing unit or a microprocessor (microcontroller 24; column 5, line 24);

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An on-chip oscillator (v.8 bis tone generator 28; column 5, lines 25, 60-62; see examiner's response to arguments above on why modem and tone generator are oscillators);

An ISO 7816 interface (CPU; column 6, lines 53-55);

A one-wire modem interface (modem 26; column 5, line 25);

And characterized in that both communication interfaces are bidirectional and share the same I/O terminal (serial port; column 7, lines 45-48).

19. Claims 1, 2, 15, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Atsmon et al (6,607,136).

20. Regarding claim 15, Atsmon discloses a smart card (system shown in figure 1) having a secure memory device and a modem interface, the memory device comprising:

A rewritable memory (memory unit 22, figure 2; column 12, lines 38-42);

A processing unit or a microprocessor (processing unit 21);

An on-chip oscillator (oscillator circuit or RC circuit; column 13, lines 4-11);

examiner notes that Atsmon teaches both circuits being external. However, both circuits are external to the processor, not to the card. This is evidenced by the fact that Atsmon teaches the type of oscillator used is limited by the size of the card. Atsmon also teaches that the oscillator would be connected to the OSC1/CLKIN pin of the processor (figure 7). Accordingly, examiner asserts that the oscillator is on-chip (on the card).

An ISO 7816 interface (column 25, lines 12, 13);

A one-wire modem interface (transducer; column 11, lines 37-39);

Characterized in that both communication interfaces are bidirectional and share the same I/O terminal (input/output unit 35, figure 3; column 11, lines 36-40);

21. Regarding claim 2, Atsmon further discloses a secure memory of device as in claim 1, exchanging data with a host in the form of a modulated signal by means of a card reader (air, column 15, line 7), the card reader characterized by the absence of processing means. Due to the USC 112 rejection previously cited, examiner notes that card reader is interpreted, as a connector in light of the specification.

22. Regarding claims 1 and 2, examiner notes that if claim 1 is interpreted as applicant intended, specifically, the secure memory device being the smart card, or a portion of the smart card, then the above rejection using teachings of Atsmon applies. However, examiner asserts that without further modifications to claim 1 to reflect applicant's intended scope, teachings of Landry still provide a valid basis for rejection.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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24. Claims 3-14, 17-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atsmon in view of Saitoh (US Patent # 5,929,414).

25. Regarding claim 3, Atsmon discloses claim 2, but does not disclose explicitly when a reset input that controls activation of ISO interface and modem interface.

However, Saitoh discloses a memory device (figure 1) wherein a ISO interface (contact 55) is active when a reset input is high, and a modem interface (modem 57) is active when the reset input is low (column 5, lines 22-43; lines 59-65). Examiner notes that Saitoh discloses the modem being activated and connected to the CPU when VCC from a contact reader/writer is off. This means that reset input is also low (off) because a contact reader/writer provides a reset ON only when VCC is on.

Teachings of Atsmon and Saitoh are from the same field of IC cards, and specifically of communication interface design of IC cards. Therefore, it would have been obvious for a person of ordinary skill in the art at the time of invention to combine teachings of Atsmon and Saitoh by using the selector circuitry and logic in the IC card system disclosed by Atsmon for the benefit of enabling both contact and contact-less data transfer in one IC card (column 2, lines 35-38).

26. Regarding claim 4, Atsmon and Saitoh combined disclose claim 3, where Saitoh further discloses transmitting a modulated answer to reset to the host when the reset input is pulled down (column 3, lines 65-68; column 4, lines 1-2). Examiner notes that modem (contact-less interface to reader/writer) also conforms to ISO 7816-3, and therefore must communicate with the reader/writer in the same format. This is further

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evidence by Saitoh's teachings of a reader/writer that communicates with either contact or contactless IC cards (column 8, lines 29-40).

27. Regarding claim 5, Atsmon and Saitoh combined disclose claim 4, where Saitoh further discloses transmitting the MAR only once, when the card is inserted into the card reader (column 8, lines 29-51). Examiner notes this operation is also defined by ISO standard 7816.

28. Regarding claim 6, Atsmon and Saitoh combined disclose claim 5, where Saitoh further discloses where the MAR comprises at least three fields, a header, a card number and a random number. Examiner notes these fields are according to ISO standard 7816.

29. Regarding claim 7, Atsmon and Saitoh combined disclose claim 6, where Saitoh further discloses computing a new random number prior to transmit the MAR. Examiner notes this is again a requirement of ISO standard 7816.

30. Regarding claim 8, Atsmon and Saitoh combined disclose claim 3, where Atsmon further discloses transmitting data to and receiving data from a PC by means of a card reader plugged into the microphone input and the speaker output of the PC sound card (figure 1; column 31, lines 29-52).

31. Regarding claim 9, Atsmon and Saitoh combined disclose claim 8, but does not disclose explicitly powered by voltage provided by the microphone input of the sound card. Examiner asserts that it would have been obvious for a person of ordinary skill in the art at the time of invention to provide power to the card using the microphone because it would eliminate need of a power source on the card.

32. Regarding claim 10, Atsmon and Saitoh combined disclose claim 3, and Atsmon further discloses transmitting data to and receiving data from an IVR server by means of a card reader plugged into the telephone line (column 10, lines 60-65; column 20, lines 1-18).

33. Regarding claim 11, Atsmon and Saitoh combined disclose claim 10, but does not disclose explicitly powered by voltage provided by the telephone line. Examiner asserts that it would have been obvious for a person of ordinary skill in the art at the time of invention to provide power to the card using the telephone line because it would eliminate need of a power source on the card.

34. Regarding claim 12, Atsmon and Saitoh combined disclose claim 3, where Atsmon further discloses transmitting data to and receiving data from a PC or an IVR server by means of a card reader equipped with a speaker/microphone transducer, converting the modulated signal into an audible sound and vice versa (figure 1; column 31, lines 29-52). Examiner notes that PC speakers must have transducers to convert audible sound to digital signals and vice versa.

35. Regarding claim 13, Atsmon and Saitoh combined disclose claim 12, but does not disclose explicitly powered by a battery cell within the card reader. Examiner asserts that it would have been obvious for a person of ordinary skill in the art at the time of invention to provide power to the card using battery cell within the card reader because it would eliminate need of a power source on the card.

36. Regarding claim 14, Atsmon and Saitoh combined disclose claim 3, where Saitoh further discloses where Vcc is connected to an ISO contact C1, Rst to an ISO contact

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C2, Clk to an ISO contact C3, Gnd to an ISO contact c5, and I/O to an ISO contact C7.

Examiner notes that these connections are all part of the ISO 7816 standard.

37. Claims 17-28 are substantially similar to claim 3-14. The same rejection is applied.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Sun whose telephone number is (571) 272-2675. The examiner can normally be reached on M-F, 10:30am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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2/3/2006


KIM HUYNH
SUPERVISORY PATENT EXAMINER
2/6/06